

Application Serial No. 09/746,453

REMARKS

The Applicants and the undersigned thank Examiner Desire for the careful review of this application. Claims 1-31 have been rejected. Upon entry of this amendment, Claims 1-31 remain pending in this application.

The independent claims are Claims 1, 16, 17, 19, and 21-23. Consideration of the present application is respectfully requested in light of the above amendments to the application and in view of the following remarks.

Claim Rejections under 35 U.S.C. §§ 102(e) and 103(a)

The Examiner rejected Claims 1, 4, 6, 12, 14-15, and 29 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,563,959 issued in the name of Troyanker (hereinafter the "Troyanker" reference). The Examiner rejected Claims 2, 3, 13, 16-25, 27, and 31 under 35 U.S.C. § 103(a) as being obvious in view of the Troyanker reference in view of U.S. Patent No. 6,161,109 issued in the name of Matamoros et al. (hereinafter the "Matamoros" reference).

The Examiner rejected Claim 5 under 35 U.S.C. § 103(a) as being obvious in view of the Troyanker reference in view of U.S. Patent No. 6,463,426 issued in the name of Lipson et al. (hereinafter the "Lipson" reference). The Examiner rejected Claims 7-11 under 35 U.S.C. § 103(a) as being obvious in view of the Troyanker reference in view of U.S. Patent No. 6,271,840 issued in the name of Finseth et al. (hereinafter the "Finseth" reference).

The Examiner also rejected Claim 28 under 35 U.S.C. § 103(a) as being obvious in view of the Troyanker and Matamoros references in view of the Lipson reference. The Examiner further rejected Claim 30 under 35 U.S.C. § 103(a) as being obvious in view of the Troyanker and Matamoros references in view of the Finseth reference. The Applicants respectfully offer remarks to traverse these pending rejections.

Independent Claim 1

The rejection of Claim 1 is respectfully traversed. It is respectfully submitted that the Troyanker, Matamoros, Finseth, and Lipson references fail to describe, teach, or suggest the combination of (1) searching a database for target objects; (2) providing a

Application Serial No. 09/746,453

known object comprising an image; and (3) determining if any target object in the database is confusingly similar with the known object by comparing a model based on a full-size of the known object with at least one of a full-size of the target object, a scaled version of the entire target object, and a portion of the target object, as recited in amended Claim 1.

The Troyanker reference describes an image analysis and management system that converts raw image data into a scaled or smaller sized mathematical representation of the image data that is used in a comparison with a known image. Specifically, the Troyanker reference takes raw image data and converts it from an RGB format to a CIE LUV color format. See Figure 2 reproduced below, top left flow, and column 4, lines 2-15 of the Troyanker reference.

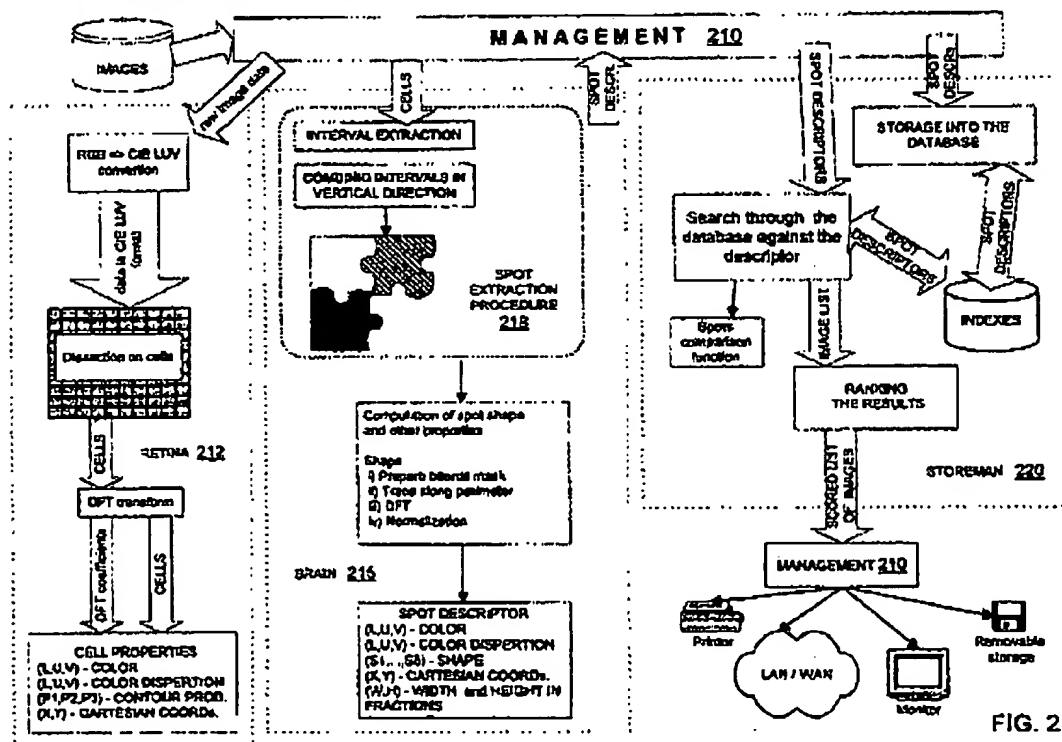


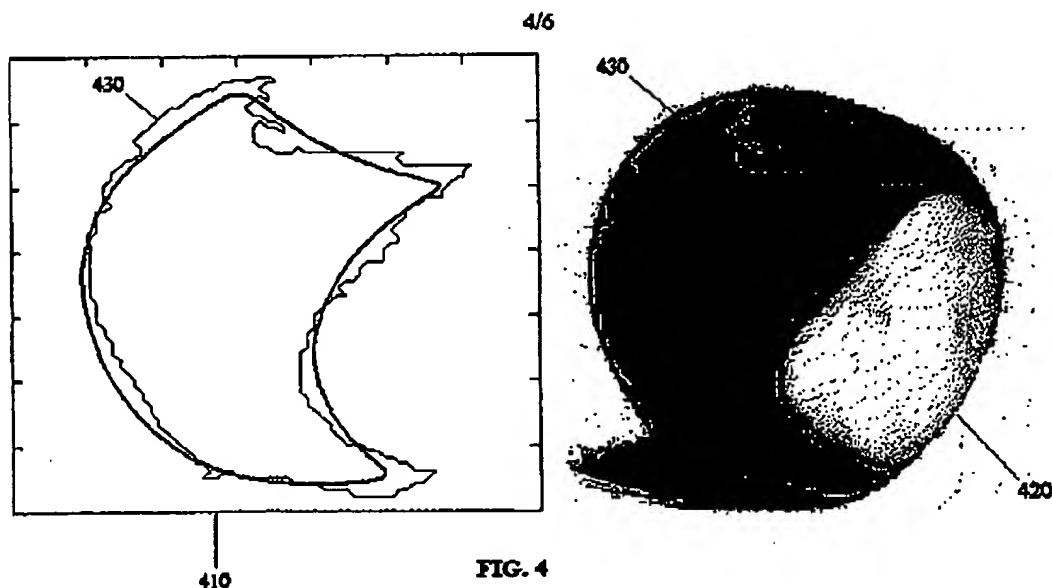
FIG. 2

After converting the raw image data to an RGB format, it converts the RGB formatted data into cells using a Discrete Fourier Transform (DFT). See DFT transform and Retina 212 of Figure 2. The cells of the DFT transformed data is then processed using a spot extraction method 218. In this method, cells of the DFT transformed data are joined together to form a smaller sized image. See the Troyanker reference, Spot

Application Serial No. 09/746,453

extraction procedure 218 of Figure 2, and column 4, lines 47-60. Specifically, cells are joined together to form intervals and then the intervals are assigned to a certain group or spot. A spot is a group of intervals having the relatively same color and brightness. All intervals within a spot are connected. See the Troyanker reference, column 4, line 65 through column 5, line 3. The Troyanker reference further explains that only low frequencies are the subject of interest as they carry the majority of information about a shape while disregarding pixel-size perturbation and noise added to the spot extraction procedure. See the Troyanker reference column 5, lines 22-26.

Figure 4 of the Troyanker reference reproduced below illustrates the concept in which only low frequencies are the subject of interest and form the spot and a spot descriptor (shape outline). Model 410 of Figure 4 of the Troyanker reference shows a spot with a thin line 430 while the thick line, referred to as the spot descriptor, provides the shape of the original object 420. See Troyanker reference, column 5, lines 25-40.



The thick line or spot descriptor of model 410 is a data structure which keeps spot properties. Besides shape, the spot descriptor also contains spot color, the color dispersion across the spot, the relative size and position within the whole original image, and spot hierarchy information. It is the spot descriptor that is passed to the Storeman Operation 220 as illustrated in Figure 2 (reproduced above) and that is used for searching and comparing against spot descriptors of target objects. See Figure 2, functional block

Application Serial No. 09/746,453

labeled, "Search through the database against the descriptor," and column 5, lines 50-64. With the Troyanker reference, descriptors that form models, such as model 410, are based on smaller sized or portions of an original object and are used to determine similarities between different images. That is, spot descriptors of target objects are compared against a spot descriptor of an original object.

Opposite to the Troyanker reference, target objects in a database of the invention described in amended Claim 1 are determined if they are confusingly similar with the known object by comparing a model that is based on a full-size of the known object with at least one of a full-size of the target object, a scaled version of the entire target object, and a portion of the target object. The Troyanker reference does not use models based on a full-size of the known object. Instead, the Troyanker uses a reduced-size or portions of an original object (i.e., the spot descriptor) to perform any comparisons between objects.

The Applicant reminds the Examiner that for a rejection based upon 35 U.S.C. § 102, MPEP § 2131 (8th Ed., Rev. 2, May 2004) states:

TO ANTICIPATE A CLAIM, THE REFERENCE MUST TEACH EVERY ELEMENT OF THE CLAIM...The identical invention must be shown in as complete detail as is contained in the claim. Richardson v. Suzuki Motor Co., 9 USPQ 2d 1913, 1920 (Fed. Cir. 1989)."

The Applicants submit that the Examiner has not shown the identical invention in as complete detail as is contained in amended independent Claim 1. Because the Troyanker reference does not teach the use of models based on a full-sizes of the known objects, the Applicants submit that this reference fails to teach numerous elements recited in independent Claim 1 and therefore, the Troyanker reference fails to anticipate amended independent Claim 1.

Matamoros Reference

The Examiner admits that the Troyanker reference does not provide any teaching of storing duplicated objects to produce stored duplicated objects as recited in dependent Claim 2. To make up for a duplicating objects deficiency of the Troyanker reference, the Examiner relies upon the Matamoros reference.

Application Serial No. 09/746,453

The Examiner refers the Applicant to Figure 1, functional block 122, in which the Examiner alleges that the Matamoros reference provides a teaching of duplicating and storing images from a database. However, the Applicants point out that one of ordinary skill in the art recognizes that the "image copy" language listed in functional block 122 of the Matamoros reference is not referring to "images" in the graphics sense or graphical object meaning of the word.

Instead, the term "image copy" as used in the Matamoros reference is defined as a "secondary" copy of a database. Specifically, the Matamoros reference describes an image copying system 122 in conjunction with a data manager 118 that provides a technique for determining which data from a database has been modified and should be copied from an "original" or "primary" copy on primary storage device to update an "image" or "secondary" copy on a secondary data storage for use as a backup copy device. See Figure 1, image copying system 122, of the Matamoros reference reproduced below, and column 4, lines 45-57.

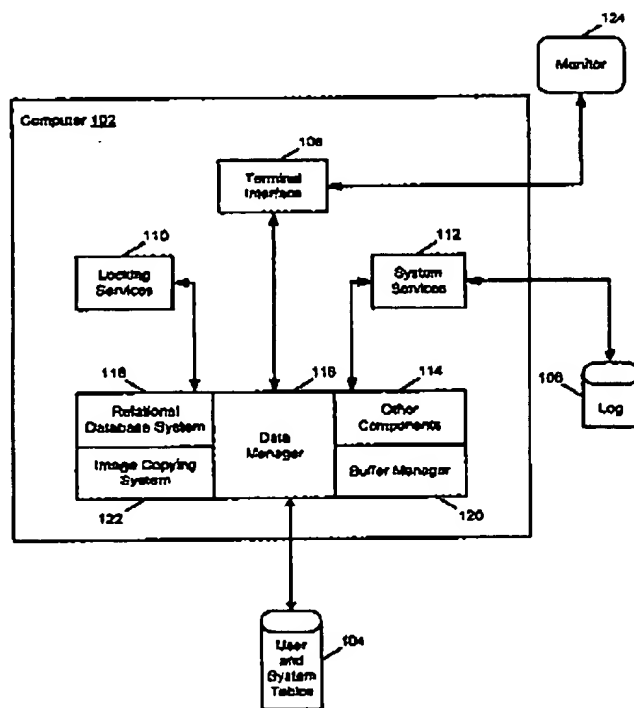


FIG. 1

Application Serial No. 09/746,453

Therefore, one of ordinary skill in the art recognizes that the Matamoros reference does not relate in any way to graphical "images" or objects as recited in amended independent Claim 1 and is not combinable with the Troyanker reference for the purposes alleged by the Examiner. Even if the Examiner maintains his position with this proposed combination, the Matamoros reference does not make up for the numerous deficiencies of the Troyanker reference relative to amended Claim 1. For example, the Matamoros reference does not provide any teaching of determining if objects are confusingly similar with the known object by comparing a model that is based on a full-size of the known object with at least one of a full-size of the target object, a scaled version of the entire target object, and a portion of the target object, as recited in amended independent Claim 1.

Finseth Reference

The Examiner admits that the Troyanker and Matamoros references fail to provide any teaching of searching the Internet in general and using a web crawler. To make up for this deficiency, the Examiner relies on the Finseth reference.

The Finseth reference describes a visual index process 20 in which a web crawler 32 retrieves web pages by accessing uniform resource locators (URLs) 30. The URLs 30 are provided by a source system or process 22 such as an internet search engine such as Yahoo!! or Google. See Figure 1 of the Finseth reference reproduced below and column 4, lines 25-27; 57-60.

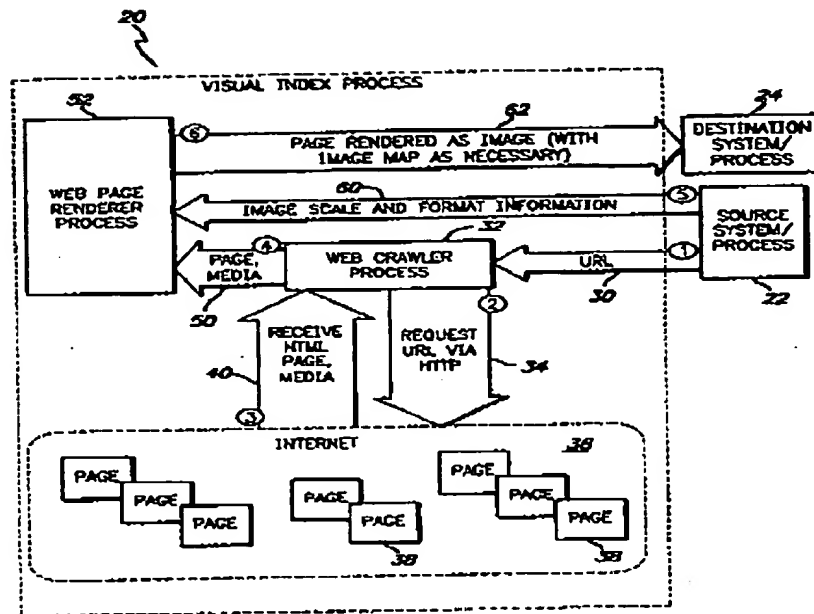


FIG. 1

The Finseth reference explains that the web crawler 32 passes the web page information to the web page renderer 52 that transforms the web page information into a scaled image. See the Finseth reference, column 5, line 61 through column 6, line 34. This scaled image can be placed adjacent to the text URL in the destination system or process 24 in which the new index presenting the scaled thumbnail image of a web page and its associated text URL are displayed.

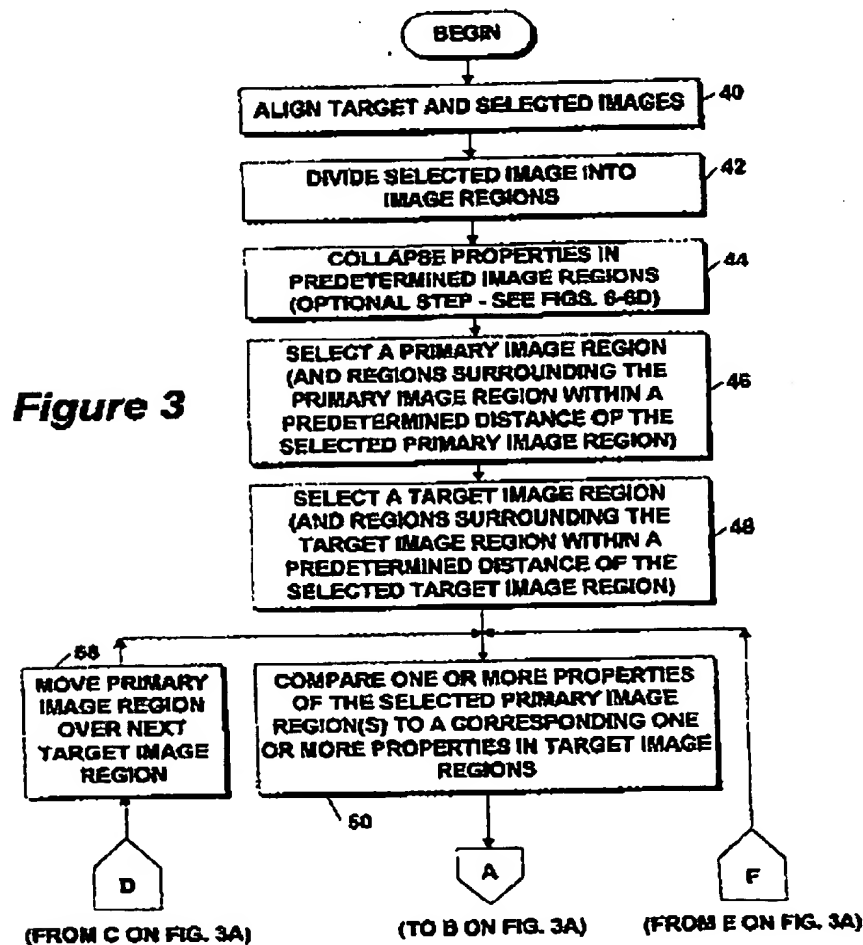
While the Examiner may allege that the Finseth reference is relevant prior art, the Finseth reference does not make up for the numerous deficiencies of the Troyanker and Matamoros references. Similar to these two references, the Finseth reference does not provide any teaching of determining if objects are confusingly similar with the known object by comparing a model that is based on a full-size of the known object with at least one of a full-size of the target object, a scaled version of the entire target object, and a portion of the target object, as recited in amended independent Claim 1. Instead, the Finseth reference merely teaches an indexing system that produces thumbnail sized images of web pages.

Application Serial No. 09/746,453

The Lipson Reference

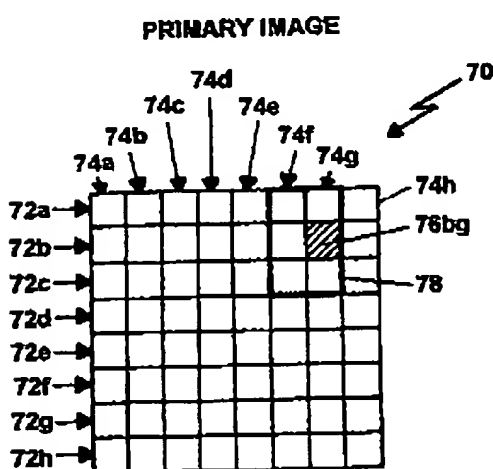
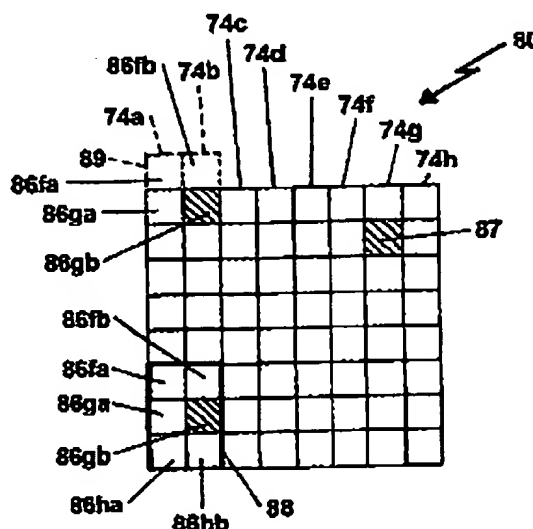
The Examiner admits that the Troyanker reference fails to provide any teaching of objects selected from the group consisting of logos, trademarks, servicemarks, and mixtures thereof as recited in dependent Claim 5. To make up for this deficiency, the Examiner relies upon the Lipson reference.

The Lipson reference describes an image analyzer and search engine that may use a process for comparing a primary image 70 and a target image 80. In this process, the primary image 70 and target image 80 are divided into image regions with rows and columns. See Step 42 of Figure 3 and Figures 4 (Primary Image) and 4B (Target Image) of the Lipson reference reproduced below.



Application Serial No. 09/746,453

In Steps 46 and 48 of Figure 3 of the Lipson patent, smaller regions 78 and 88 of the larger primary image and target images are selected. In step 50 of Figure 3 reproduced above, the selected regions 78 and 88 that are smaller than the full-size or entire images of the primary and target images 70 and 80 are compared. See Lipson reference, Figure 3, and column 11, lines 55-58.

**Figure 4****Figure 4B**

The selected region 78 of the primary image 70 and the selected region 88 of the target image 80 are usually the same size. Both regions 78, 88 are smaller than the entire images 70, 80.

It is noted that Figure 5 of Lipson provides a step 90 that describes a "Match image A to image B to get aggregate score". The detailed description of the Lipson reference explains that the processing performed to match image A to image B is the processing described above with Figures 3-4B. See the Lipson reference, column 16, lines 37-42. In other words, the Lipson does not provide any teaching of comparing a model based on a full-size of the known object with a target object, as recited in amended independent Claim 1.

Application Serial No. 09/746,453

Summary for Independent Claim 1

In light of the differences between Claim 1 and the Troyanker, Matamoros, Finseth, and Lipson references, one of ordinary skill in the art recognizes that these prior art references, alone or in combination, cannot anticipate or render obvious the recitations as set forth in amended independent Claim 1. Accordingly, reconsideration and withdrawal of the rejection of Claim 1 are respectfully requested.

Independent Claim 16

The rejection of Claim 16 is respectfully traversed. It is respectfully submitted that the Troyanker, Matamoros, Finseth, and Lipson references, fail to describe, teach, or suggest the combination of (1) receiving a known object comprising at least one of a logo, a trademark, a service mark, and a combination thereof; (2) searching a database for objects; (3) duplicating the objects from the database to produce duplicated objects; (4) storing the duplicated objects to produce stored duplicated objects; and (5) determining if any stored duplicated object is confusingly similar with the known object by comparing a model of the known object with the duplicated object if the known object is formatted as an image and wherein the model is based on a full-size of the known object, and by comparing characters of the known object with the duplicated object if the known object comprises text, as recited in amended Claim 16.

As noted above with respect to independent Claim 1, the Troyanker, Matamoros, Finseth, and Lipson references do not determine if any stored duplicated object is confusingly similar with the known object by comparing a model of the known object with the duplicated object if the known object is formatted as an image and wherein the model is based on a full-size of the known object. These references also fail to determine if any stored duplicated object is confusingly similar with the known object by comparing characters of the known object with the duplicated object if the known object comprises text.

In light of the differences between Claim 16 and the references mentioned above, one of ordinary skill in the art recognizes that the prior art references, alone or in combination, cannot anticipate or render obvious the recitations as set forth in amended

Application Serial No. 09/746,453

independent Claim 16. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Independent Claim 17

The rejection of Claim 17 is respectfully traversed. It is respectfully submitted that the Troyanker, Matamoros, Finseth, and Lipson references, fail to describe, teach, or suggest the combination of (1) means for searching a database for objects; (2) means for duplicating the objects from the database to produce duplicated objects; (3) means for storing the duplicated objects to produce stored duplicated objects; and (4) means for determining if any stored duplicated object is confusingly similar with a known object comprising a face by comparing a model based on the normal size of the known object against at least one of a normal size of the duplicated object, a scaled version of the entire duplicated object, and a portion of the duplicated object, as recited in amended Claim 17.

As noted above with respect to independent Claim 1, the Troyanker, Matamoros, Finseth, and Lipson references do not have means for determining if any stored duplicated object is confusingly similar with a known object by comparing a model based on the normal size of the known object against at least one of a normal size of the duplicated object, a scaled version of the entire duplicated object, and a portion of the duplicated object. It also follows that these references also fail to describe such means wherein the known object comprises a face.

In light of the differences between Claim 17 and the references mentioned above, one of ordinary skill in the art recognizes that the prior art references, alone or in combination, cannot anticipate or render obvious the recitations as set forth in amended independent Claim 17. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Independent Claim 19

The rejection of Claim 19 is respectfully traversed. It is respectfully submitted that the Troyanker, Matamoros, Finseth, and Lipson references, fail to describe, teach, or suggest the combination of (1) a search engine for searching a database for objects; (2) a duplicator coupled to the search engine for duplicating the objects from the database to

Application Serial No. 09/746,453

produce duplicated objects; (3) a store coupled to the duplicator for storing duplicated objects to produce stored duplicated objects; and (4) determining means, coupled to the store, for determining if any stored duplicated objects is confusingly similar with a known object that comprises an image, for comparing a model based on a full-size of the known object with at least one of a full-size of the duplicated object, a scaled version of the entire duplicated object, and a portion of the duplicated object, as recited in amended Claim 19.

As noted above with respect to independent Claim 1, the Troyanker, Matamoros, Finseth, and Lipson references do not teach determining means, coupled to a store, for determining if any stored duplicated objects is confusingly similar with a known object that comprises an image, for comparing a model based on a full-size of the known object with at least one of a full-size of the duplicated object, a scaled version of the entire duplicated object, and a portion of the duplicated object.

In light of the differences between Claim 19 and the references mentioned above, one of ordinary skill in the art recognizes that the prior art references, alone or in combination, cannot anticipate or render obvious the recitations as set forth in amended independent Claim 19. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Independent Claim 21

The rejection of Claim 21 is respectfully traversed. It is respectfully submitted that the Troyanker, Matamoros, Finseth, and Lipson references, fail to describe, teach, or suggest the combination of (1) accessing a store that stores duplicated objects from an Internet database; and (2) determining if any of the duplicated objects stored in the store are similar with a known object by comparing a model based on a full-size of the known object with at least one of a full-size of the duplicated object, a scaled version of the duplicated object, and a portion of the duplicated object, as recited in amended Claim 21.

As noted above with respect to independent Claim 1, the Troyanker, Matamoros, Finseth, and Lipson references do not determine if any of the duplicated objects stored in the store are similar with a known object by comparing a model based on a full-size of

Application Serial No. 09/746,453

the known object with at least one of a full-size of the duplicated object, a scaled version of the duplicated object, and a portion of the duplicated object.

In light of the differences between Claim 21 and the references mentioned above, one of ordinary skill in the art recognizes that the prior art references, alone or in combination, cannot anticipate or render obvious the recitations as set forth in amended independent Claim 21. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Independent Claim 22

The rejection of Claim 22 is respectfully traversed. It is respectfully submitted that the Troyanker, Matamoros, Finseth, and Lipson references, fail to describe, teach, or suggest the combination of determining if any stored duplicated objects which were duplicated from a database is confusingly similar with a model based on a complete size of a known object of intellectual property that consists of at least one of a logo, trademark, service mark, and a combination thereof, as recited in amended Claim 22.

As noted above with respect to independent Claim 1, the Troyanker, Matamoros, Finseth, and Lipson references do not determine if any stored duplicated objects which were duplicated from a database is confusingly similar with a model based on a complete size of a known object.

In light of the differences between Claim 22 and the references mentioned above, one of ordinary skill in the art recognizes that the prior art references, alone or in combination, cannot anticipate or render obvious the recitations as set forth in amended independent Claim 22. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Independent Claim 23

The rejection of Claim 23 is respectfully traversed. It is respectfully submitted that the Troyanker, Matamoros, Finseth, and Lipson references, fail to describe, teach, or suggest the combination of (1) duplicating an object from a database to produce a duplicated object; (2) analyzing the content of the duplicated object to produce a matrix of numbers; (3) producing a model template from a known object that is based on a full-

Application Serial No. 09/746,453

size of the known object; and (4) comparing the model template of the known object with at least one of all of the matrix of numbers, a portion of the matrix of numbers, and a scaled version of the matrix of numbers to determine the degree of similarity between the duplicated object and the known object, as recited in amended Claim 23.

As noted above with respect to independent Claim 1, the Troyanker, Matamoros, Finseth, and Lipson references do not produce a model template from a known object that is based on a full-size of the known object. Instead, these references use portions or scaled versions of the known object in their comparison processes.

In light of the differences between Claim 23 and the references mentioned above, one of ordinary skill in the art recognizes that the prior art references, alone or in combination, cannot anticipate or render obvious the recitations as set forth in amended independent Claim 23. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Dependent Claims 2-15, 18, 20, and 24-31

The Applicants respectfully submit that the above-identified dependent claims are allowable because the independent claims from which they depend are patentable over the cited references. Accordingly, reconsideration and withdrawal of the rejections of the dependent Claims 2-15, 18, 20, and 24-31 are respectfully requested.

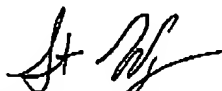
CONCLUSION

The foregoing is submitted as a full and complete response to the Office Action mailed on March 9, 2004. The Applicants and the undersigned thank Examiner Desire for the consideration of these remarks. The Applicants have submitted remarks to traverse the rejections of Claims 1-31. The Applicants respectfully submit that the present application is in condition for allowance. Such Action is hereby courteously solicited.

Application Serial No. 09/746,453

If any issues remain that may be resolved by telephone, the Examiner is requested to call the undersigned at 404.572.2884.

Respectfully submitted,



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